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British #7498
of 1887

A.D. 1887. May 23. Nº 7498.
BURY'S Complete Specification.

(1 SHEET)

1

Fig 1

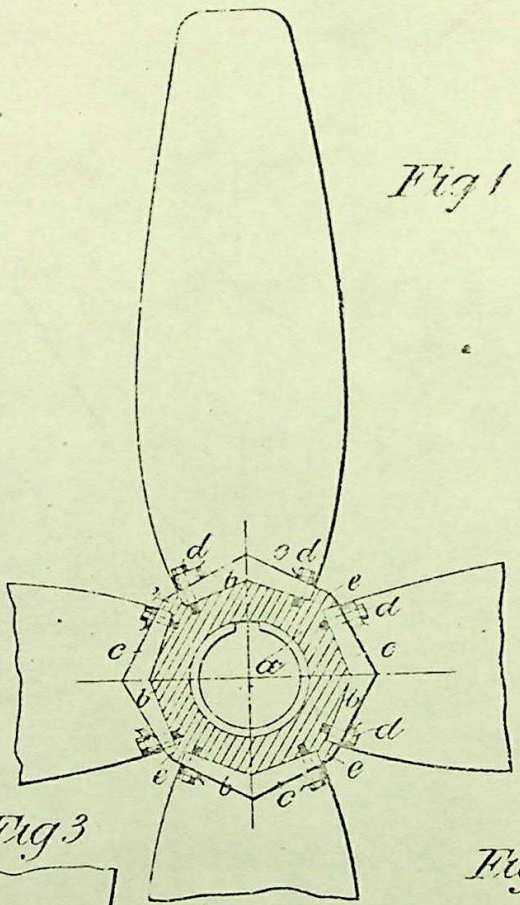


Fig 3

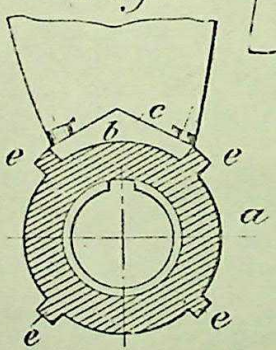
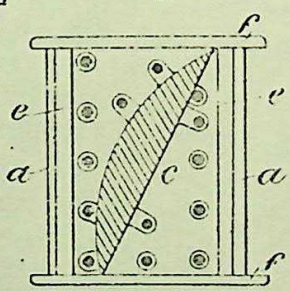


Fig 2



[This Drawing is a reproduction of the Original on a reduced scale.]

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A.D. 1887, *23rd May.* N° 7498.

COMPLETE SPECIFICATION.

Improvements in Screw Propellers.

I, WILLIAM BURY, of No. 5 New London Street, in the City of London, Consulting and Marine Engineer, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

My invention relates to screw propellers in which the blades are made separate from the central boss, and has for its object to construct the flanges at the basis of the blades in such a manner as to occasion less loss of efficiency than usually occurs with screw propellers of the type referred to as heretofore constructed. To this end according to my invention each blade flange at the base is made with angular surfaces or with a curved surface corresponding to an arc of a circle and the central boss is correspondingly shaped to receive such specially formed parts of the blade, as I will now proceed to explain more particularly by reference to the annexed sheet of illustrative drawings in which Fig. 1 shews in transverse section a screw propeller according to my invention.

Fig. 2 is a plan of the propeller boss having applied thereto a screw propeller shewn in transverse section. *a* is the central boss having angular faces externally to receive angular faces *b* of the flanges *c* forming the bases of the respective blades. Four blades are shewn, but there may be a less number say only three or two blades, as may be required and the central boss is then correspondingly modified. The blades are fastened to the central boss *a* by as many screw bolts *d* as may be necessary; they are further secured in position on the boss transversely by projections *e* cast on the outside of the boss and longitudinally by separate flanges *f* one of which is bolted to each end of the boss.

The arrangement with angular fitting surfaces will usually be preferable but Fig. 3 is a similar view to fig. 1 illustrating a modification in which the surfaces of the

central boss and blade flanges where they meet are curved to circular arcs instead of being angular, *e* being projections cast on the outside of the boss to further secure the blades in position transversely and flanges are provided whereby the blades are additionally secured longitudinally of the boss as in the case of the blades and central boss with angular fitting surfaces.

Having now particularly described and ascertained the nature of the said invention and in what manner it is to be performed I declare that what I claim is :—

In screw propellers in which the blades are made separate from the central boss, the formation of the said boss and of the blades as herein set forth with angular fitting surfaces substantially as described with reference to Figs. 1 and 2 or with curved fitting surfaces substantially as described with reference to Fig. 3 of the drawings annexed.

Dated this 23rd day of May 1887.

WM. BURY.

W. Lloyd Wise,
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Agent for the Applicant.

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1887.